

AMENDMENT UNDER 37 C.F.R. §1.116
U.S. APPLICATION NO. 10/058,376

REMARKS

Interview Statement:

Applicants thank the Examiner for the telephone interview of December 4, 2003 with the undersigned.

In the interview, there was general agreement that (i) the claims as amended herein require a treatment liquid containing sulfated castor oil as a component separate from the stained blocking agent; (ii) U.S. Patent 4,937,123 to Chang et al, of record, discloses a treatment liquid containing sulfated castor oil that is copolymerized with acrylate monomers to give a methacrylic polymer; and (iii) the subject language of present claims 1 and 7 defines over the prior art. With regard to (ii), it was noted that the reaction mixture of column 6, lines 29-41 of Chang et al containing sulfated castor oil, methacrylic acid, acrylic acid water and ammonium per sulfate was reacted at 90°C to provide polymer A.

The Examiner questioned how Example 1 of the present specification (page 11) where stain blocking agent A-4 was mixed with sulfated castor oil and water differed from the copolymer of Chang et al. In response, the undersigned noted that stain blocking agent A-4, which is a mixture of a phenol/formaldehyde condensate and a polymethacrylic acid, is already polymerized and therefore can no longer react with the sulfated castor oil. This was subsequently confirmed by the Applicants.

Response to Prior Art Rejection:

Claims 1 and 7 have been amended to incorporate therein the recitations of claims 9 and 10, respectively. Claims 9 and 10 have been canceled. Entry of the amendment in the present

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application, consisting of the combination of existing claims, is respectfully requested as placing this case in condition for allowance.

Review and reconsideration on the merits are requested.

Claims 1-12 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,937,123 to Chang et al. Chang et al was cited as teaching the preparation of a mixture of a stain blocking agent, a sulfated castor oil and a salt (which mixture is then applied to fibrous polyamide materials).

Applicants traverse for the following reasons.

The claims as amended herein require a treatment liquid containing sulfated castor oil as a component separate from a stain blocking agent selected from a phenol-formaldehyde condensate, an acrylic polymer and mixtures thereof. Chang et al discloses a treatment liquid in which sulfated castor oil is copolymerized with acrylate monomers to give a methacrylic polymer. There is no disclosure of in Chang et al of a treatment liquid containing sulfated castor oil as a component separate from the methacrylic polymer. Chang et al therefore does not meet the terms of the present claims and therefore does not anticipate the present claims. Also, because there is no disclosure or suggestion of adding sulfated castor oil to a treatment liquid containing an already prepared methacrylic polymer, the present claims are also unobvious. This is discussed in further detail below.

In response to Applicants' argument in response to the previous office action that the sulfated castor oil in Chang is copolymerized with acrylate monomers, whereas in the invention,

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the sulfated castor oil is not copolymerized into the stain blocking agent, the Examiner commented that:

(i) Chang et al (col. 4, line 4) describes that the sulfated castor oil can be copolymerized with methacrylic acid, but does not require the sulfated castor oil to be copolymerized with the methacrylic acid;

(ii) Nowhere does Chang et al state that even if the sulfated castor oil is copolymerized the resulting reaction product has no free sulfonated castor oil; and

(iii) The present claims do not exclude methacrylic polymers from the treatment liquid.

Applicants respond and respectfully traverse for the following reasons.

Chang et al discloses, particularly at col. 3, lines 67 to col. 4, lines 5, that the sulfated castor oil is copolymerized with acrylate monomers to give a methacrylic polymer. See also "PREPARATION OF METHACRYLIC POLYMER (POLYMER A)" at col. 6 and claim 1 of Chang et al. In contrast, in the present invention, the sulfated castor oil is not copolymerized into the stain blocking agent. For example, in Example 1 at page 11 of the specification, the stain blocking agent A-4 and sulfated castor oil were mixed and diluted with water to give a total amount of 100g. The pH of the mixture was then adjusted to 1.5 with sulfamic acid. More particularly, because the stain blocking agent A-4 is already polymerized, it can no longer react with the sulfated castor oil. That is, the sulfated castor oil is a component separate from the stain blocking agent and is not introduced as a comonomer into the stain blocking agent. As shown

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below, this requirement is also reflected in the present claims which define a sulfated castor oil as a component separate from the stain blocking agent in the treatment liquid.

Regarding (i), the language “can be copolymerized” at col. 4, lines 4-5 describes that mixtures of various monomers may be copolymerized (as opposed to copolymerizing only a single monomer with methacrylic acid), and should not be understood as suggesting that sulfated castor oil need not be copolymerized with methacrylic acid.

Regarding (ii) above, Chang et al clearly contemplate copolymerizing sulfated castor oil with acrylate monomers to give a methacrylic polymer. The working examples of Chang et al employ acrylate monomers as a predominant component. There is no disclosure of free sulfated castor oil. The reference is available as prior art for what it teaches, not for what it does not teach.

As to (iii), it is true that the present claims do not exclude methacrylic polymers from the treatment liquid. However, the point here is that the present claims require sulfated castor oil as a component separate from the stain blocking agent, which limitation is not met by Chang et al. Further in this regard, claims 1 and 7 have been amended to incorporate therein the recitation of claims 9 and 10, to recite that the stain blocking agent is selected from a phenol/formaldehyde condensate, an acrylic polymer and a mixture of a phenol/formaldehyde condensate and acrylic polymer. This amendment clarifies that the sulfated castor oil is a component separate from the stain blocking agent.

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The Examiner further considered that even if Chang et al does not anticipate the present claims, it nonetheless would have been obvious to arrive at the invention because Chang et al "teach the mixing of a stain blocking agent, sulfated castor oil, and a salt".

In response, the invention cannot be obvious over Chang et al because Chang et al does not teach each and every limitation of the claimed invention (i.e., application of a treatment liquid containing sulfated castor oil as a component separate from the stain blocking agent).

Withdrawal of all rejections and allowance of claims 1-8, 11 and 12 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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